

ABSTRACT OF THE DISCLOSURE

A system and method for enabling parallel replay of a backup memory log of client transaction request entries to a network storage appliance file system is provided.

The backup memory is typically implemented as a non-volatile random access memory (NVRAM). An initiator establishes a swarm of messages with a plurality of transaction blocks pointing to logged request entries and related states associated therewith. The states represent the various phases of file system recovery and disk storage including a retrieval of disk information (data and meta-data), typically in the form of a LOAD, and a subsequent modify phase. The swarm is transferred to the file system for parallel disk information-retrieval in an interleaved process. Any transactions that cannot be performed due to a required prerequisite action (e.g. a prior file-create) are returned to the initiator for reloading once the prerequisite action has occurred.